

**P**eriodic boundary value problems for nonlinear differential equations are considered. The existence of solutions is proved by means of the Leray-Schauder theorem.

ABSTRACT OF THE DISCLOSURE

The present invention is directed to nucleic acid molecules encoding proteins. The invention has transcriptional activator proteins on vectors and host cells comprising the nucleic acid molecules. Nucleic acid molecules are also provided, as well as methods of increasing or decreasing the expression of a transcriptional activator protein in a host cell. The invention further provides methods of using the ability of the substrate to bind a transcriptional activator protein functionally to regulate other transcriptional activators. DNA oligomers capable of binding a nucleic acid molecule encoding the transcriptional activator protein are provided, which can be used to regulate transcriptional activator proteins specific for the transcription of a particular gene and fragments thereof, are provided.

The present invention is directed to isolated nucleic acid molecules encoding protein, wherein the protein has transcriptional activator activity. Expression vectors and host cells comprising the nucleic acid molecules are also provided, as well as methods for increasing or decreasing the expression of the transcriptional activator protein in host cells. The invention further provides methods of screening a substance for the ability of the substance to modify transcriptional activator protein function, and a method for isolating other transcriptional activator protein molecules. DNA oligomers capable of hybridizing to the nucleic acid molecule encoding the transcriptional activator protein are provided, which can be used to detect transcriptional activator protein in a sample. Antibodies specific for the transcriptional activator protein, and fragments thereof, are provided.